Work Order 1 June-12-13 9:15:16			*102	2845*						Page 1
Revision ID: Item Name: L-B Start Date: 6/1	012-115-1 Fracket 1/13 Start Qty: 5.00	*5*	Accept	*N900		100	)* s	etup Sta	1 🗸	S1* S2*
Required Date: 6/1	1/13 <b>Req'd Qty:</b> 5.00	*5*		Customer:						
	rocess Plan:	Date: \\ \( \frac{3}{6} \) \( \text{O} \)	Tooling: SPC (Y/N):		ate:		R	tun Sta Sto	"   <b>\</b>	R1* R2*
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr									
D2012-115	В									•
*100 *100* Waterjet	FLOW WATER JET  Memo		0.00							JM13-0725
FLOW CNC Waterjet 304 - 063	1-Cut as pe Dwg Rev:_ Prog Rev:_ 2-Deburr it	<u> </u>								
110	QC2- Inspect parts off i	nachine FAI/FAIB	0.00							
*110* QC Quality Control	Memo		0.00				5	_0		Jm13-07-25
	. •			-46						
*120	QC8- Inspect parts - sec	cond check	0.00	DAS 27 3-89			5			
QC	Memo		0.00 13	126						

Quality Control

DQA:			Date:			•								<b>™</b> ∩ART
QA Closed:			Date:			WORK ORDER NON	-C(	ONFO	RMANCE / UPDATE	Wo	ork Order up	odate only	<u> </u>	AEROSPACE
<del> </del>						DISPOSITION			AGAINST		PARTMENT	·		
Work Ord	er: .	<u>-</u> .				Dawa de C	7		Child high a Constant		i	Water Jet		l Engineering [
Part 1	No.				<del></del>	Rework Scrap			Skid-tube Crosstube  Machining Small Fab		1	d. Eng. Coor.		Engineering Quality Other
NCR I	No.					Use-as-is Suspected Unapproved	]	inerr	noforming Finishing Large Fab Composite	-	Rec/Sto	re/Packaging Supplier		Other
Root					Desc	ription of work order update	1	nitial	Action		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verificatio	n	QC Inspector
Design						,								
Doc/Data											1			
Equip/Tooling														
Handling/Pre			1											
Material						<i>)</i>		· 🐪 .						
Operator														
Offset/Setup														
Process							İ							
Supplier														
Training	П													
Transport	П													
Unapproved	П													
			<u> </u>	•	•		FA	ULT CA	TEGORY		•	•		
Landi	ng G	ear				General								
		Bending				Bend		Folio/F	Program		Outside Dim	ensions	Г	Pressure/Forced
		Centre N	ot Concer	ntric		BOM/Route		Grain			Over/Under	tolerance	Г	Set-up
		Cracks				Broken/Damage/Defect		Hardwa	are		Part Incorre	ct	Г	Temperature/Cure
	Г	Crimp/Kii	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/Unqualified		Part Lost/Mi	issing		Weld
	П	Cuffs				Contamination		•	tions Incomplete/Unclear		Part Moved			Wrong Stock Pulled
	$\vdash$	Crushing				Countersink		-	gned/off center		Positioned V	Vrong		
	-	Heat Trea				Cut Too Short		Mislab			Power Loss/	=		Other
	-	Inspectio		Tube		Drawing		Misrea			•	<del>-</del>	_	
		Marks/Ch				Drill Holes		Off-set						
		Turning S				Finish		-	Calibration					
		Wave/Tw				Fit/Function		4	Sequence					

Packaging

Work Orde June-12-13 9:15		2845		*102	2845*						Page 2	
Revision ID:	D2012-115-1 L-Bracket			Accept	*N900	)040	100	<b>)*</b> s	Setup Start	1/1	S1* S2*	
	6/11/13	Start Qty: 5.00 Req'd Qty: 5.00	*5* *5*		Cust Item Customer							
Approvals:		n:		Tooling: SPC (Y/N):		Date:		F	Run Star Stop	IXI	R1* R2*	
Sequence ID/ Work Center II	)	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
*130 *130* Brake NC Brake NC		Form as per dwg NC BRAKE <b>Memo</b>		0.00				_\$	. Augusta		8B 13/09/	ವ'
140 *140* QC Quality Control		QC5- Inspect part comple  Memo	eteness to step on W/O	0.00 PAS 0.00 9-8	, 96			5				
150 <b>*150*</b> Packaging		Identify as per dwg & Sto	ock Location: <u>S700</u> 3	0.00				5		3	g 3 13-09-2	コ

DQA:			_ Date: _			_							**	<sup>™</sup> ⊃∧ DT
						<b>WORK ORDER NON</b>	-CC	ONFO	RMANCE / UP	PDATE				AEROSPACE
QA Closed:			Date:							V	Vork Order u	pdate only		
Work Ord	or.					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		
Work Ord	Ç1.					Rework			Skid-tube	Crosstube		Water Jet	$\neg$	Engineering
Part l	No.					Scrap			Machining	Small Fab	Pro	od. Eng. Coor.	$\dashv$	Quality
						Use-as-is			noforming	Finishing		re/Packaging	╗	Other
NCR	۷o.					Suspected Unapproved			Large Fab	Composite		Supplier		
			.,									,		
Root		:			Desc	ription of work order update	1	Initial	Acti		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	iption	Date	Verification	1	QC Inspector
Design	_		1											
Doc/Data														
Equip/Tooling														
Handling/Pre		-												
Material	_	-												
Operator	_	-												
Offset/Setup	-	-												
Process	-	1												
Supplier Training	_	]												
Transport	$\vdash$	1												
Unapproved	-	1												
		1			L		FAI	ULT CAT	TEGORY		1	I		
Landi	ng (	Gear				General					,			
	Ť	Bending				Bend		Folio/P	rogram		Outside Din	nensions	F	Pressure/Forced
		Centre No	ot Concen	ntric		BOM/Route		Grain			Over/Under	tolerance		Set-up
		Cracks				Broken/Damage/Defect		Hardwa	ire		Part Incorre	ct	7	Temperature/Cure
		Crimp/Kii	nk/Ripple,	/Wave		Burrs		Inspecti	ion Incomplete/Un	qualified	Part Lost/M	issing	<b>-</b>	Weld
		Ċuffs				Contamination		Instruct	ions Incomplete/U	Inclear	Part Moved	[	<u> </u>	Wrong Stock Pulled
		Crushing				Countersink		Misalig	ned/off center		Positioned \	Wrong _		
		Heat Trea	at			Cut Too Short		Mislabe	eled		Power Loss,	/Surge [		Other
		Inspectio	n Strip in	Tube		Drawing		Misread	t				-	
		Marks/Cł	natter			Drill Holes		Off-set	•					
	L	Turning S	equence			Finish		Out of 0	Calibration					
		Wave/Tw	vist in Tub	e		Fit/Function		Out of S	Sequence					

\*160\*

Quality Control

## Work Order ID 102845 \*102845\* Page 3 June-12-13 9:15:16 AM \*N900040100\* Accept Setup Start Item ID: D2012-115-1 **Revision ID:** Stop L-Bracket Item Name: Start Qty: 5.00 **Cust Item ID:** 6/11/13 **Start Date:** Req'd Qty: 5.00 Required Date: 6/11/13 **Customer:** Reference: Run Start Date: \_\_\_\_\_ Tooling: Date: Approvals: Process Plan: Stop Date:\_\_\_\_ SPC (Y/N): Date: QC: amber 8. 1 18-09-80 1 18-09-80 Reject **Tool ID** Tool # Plan Accept Reject Insp. Sequence ID/ **Operation** Set Up/ Qty Work Center ID **Run Hours** Code Description QC21- Final Inspection - Work Order Release 0.00 160

0.00

Memo

DQA:		Date:		<del></del>							*DART		
QA Closed:		Date:			WORK ORDER NON-	-C(	ONFO	RMANCE / U	JPDATE	W	ork Order uj	odate only	AEROSPACE
Work Orde	ar.				DISPOSITION			<u>.</u>	AGAINST	DE	PARTMENT	/PROCESS	
WORK Orde				<del></del>	Rework			Skid-tube	Crosstube		]	Water Jet	Engineering
Part N	١٥				Scrap		1	Machining	Small Fab	⊢	Pro	d. Eng. Coor.	Quality
					Use-as-is			noforming	Finishing		Rec/Sto	re/Packaging	Other
NCR N	No				Suspected Unapproved			Large Fab	Composite		_	Supplier	
Root				Desc	ription of work order update		Initial	Ac	ction		Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Desc	cription		Date	Verification	QC Inspector
Design													
Doc/Data													
Equip/Tooling													
Handling/Pre													
Material													
Operator													
Offset/Setup Process													
Supplier								·					
Training													
Transport													
Unapproved				1									
	<b>1</b>	<u> </u>		<u> </u>		FA	ULT CAT	EGORY			<u> </u>		<u> </u>
Landi	ng Gear				General								
	Bendin	3			Bend		Folio/P	rogram			Outside Dim	ensions	Pressure/Forced
	Centre	Not Conce	ntric		BOM/Route		Grain				Over/Under	tolerance	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	re			Part Incorre	ct	Temperature/Cure
	Crimp/i	Kink/Ripple	e/Wave		Burrs		Inspecti	on Incomplete/U	Jnqualified		Part Lost/M	issing	Weld
	Cuffs				Contamination		Instruct	ions Incomplete/	/Unclear		Part Moved		Wrong Stock Pulled
	Crushin	-			Countersink	L	1	ned/off center			Positioned V	_	7
	Heat Tr				Cut Too Short		Mislabe				Power Loss/	Surge	Other
		ion Strip in	Tube		Drawing	_	Misread	d					
		Chatter			Drill Holes	_	Off-set						
		Sequence		Ŀ	Finish	_	4	Calibration					····
	Wave/	wist in Tul	oe		Fit/Function		Out of S	Sequence					

## **Picklist Print**

June-12-13 9:15:15 AM

Work Order ID:

102845

Parent Item:

D2012-115-1

Parent Item Name:

L-Bracket

**Start Date:** 6/11/13

Required Date: 6/11/13

Start Qty: 5.00

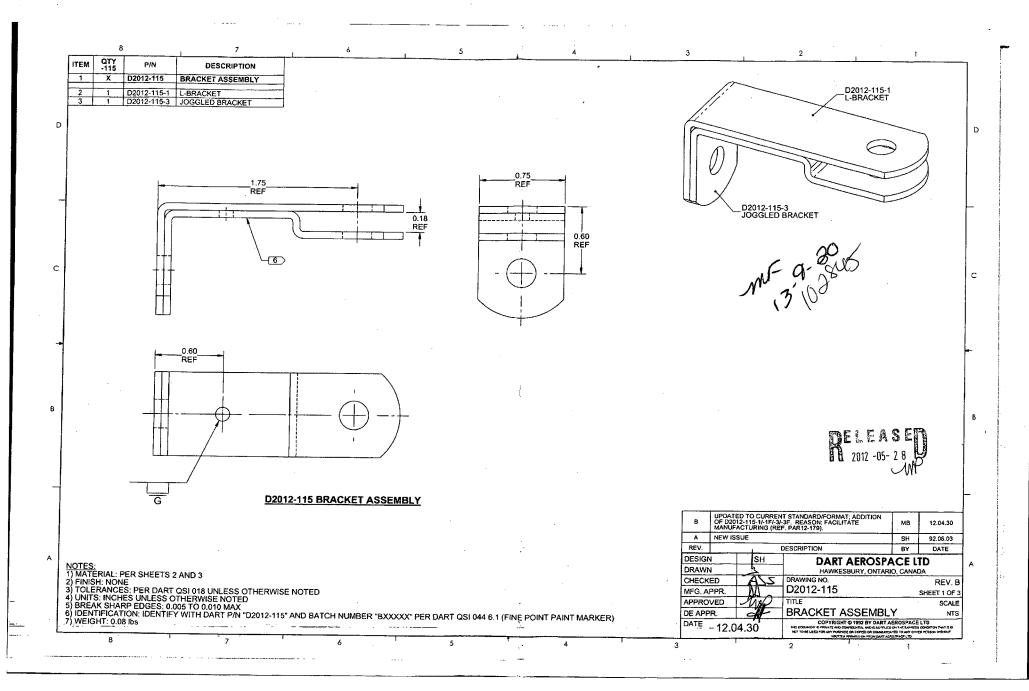
Required Qty: 5.00

Comments:

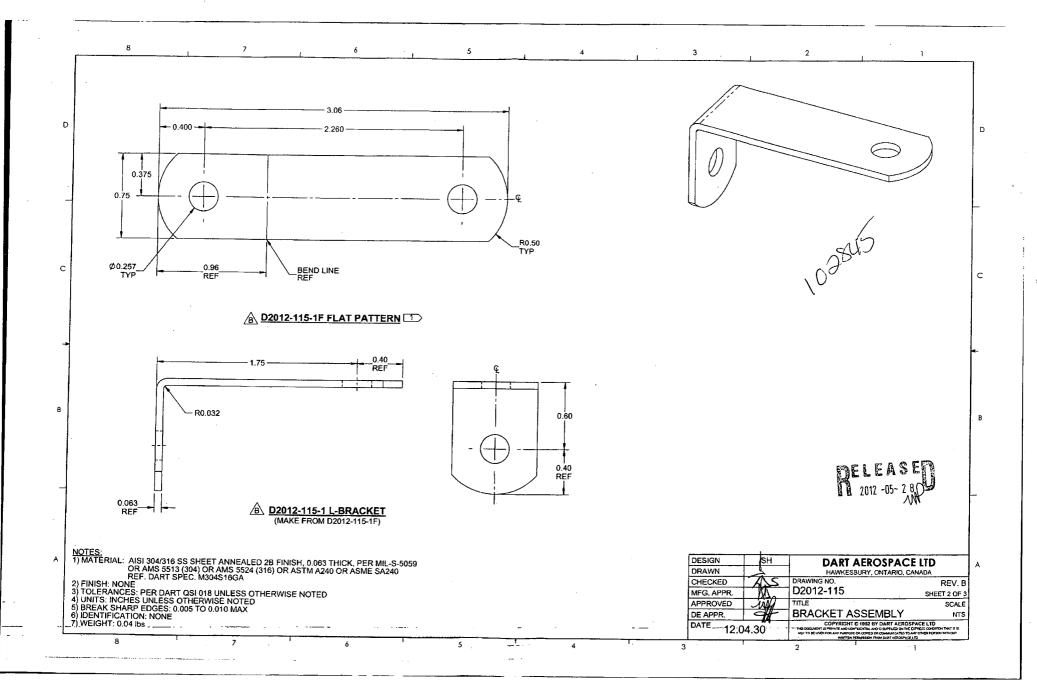
IPP REV:A 12.05.29 MADE IN HOUSE DD VERF:EC

Comments.	11 KEV.A 12.03	.27 141/10/01/11	IOOOL D	D VERG .DC									
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
<b>M304S16GA</b> 304/316 Sheet .063		Purchased	No			100	sf	280.7102	0.016	0.0842105 			Jn13-07.
				<b>Location</b>		Loc Qty	Lo	oc Code					
				MAT020		280.7101686				<b>,</b> · · · · · · · · · · · · · · · · · · ·			
				122	245	0.1713688							
				123	136	140.8							
				124	428	23.61							
	•			124	572	7.0181688				-			
				125	599	109.110631				···			
				120	0159				120	0159			

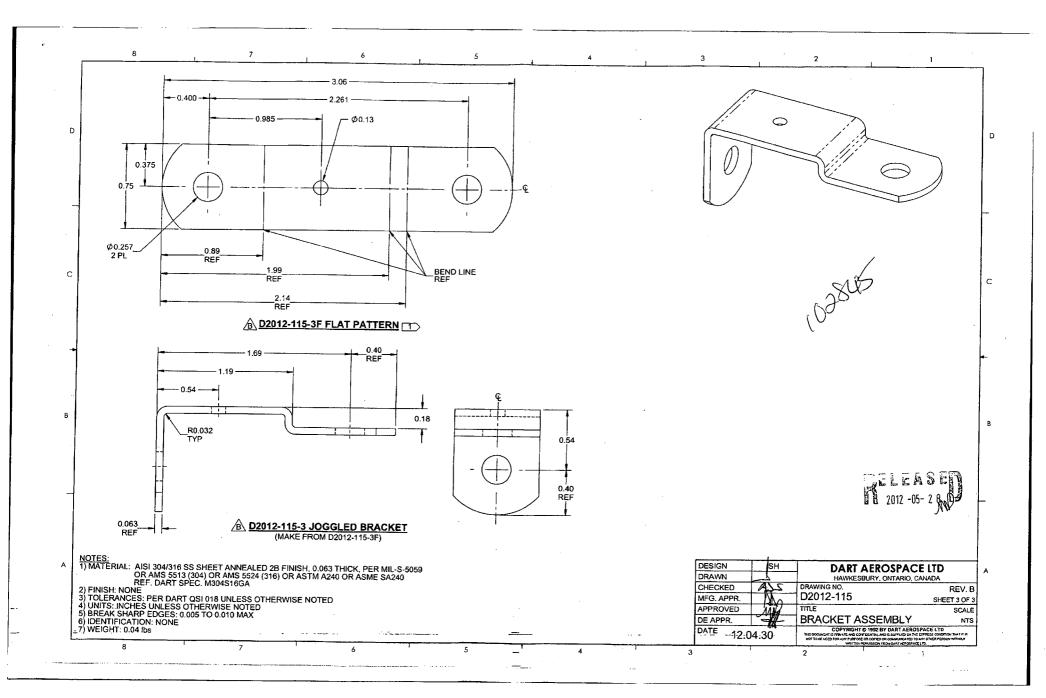
DQA:			_ Date: ˌ			_							™AAP'	Г
0.4.01			ъ.			WORK ORDER NON	-CC	ONFO	RMANCE / UF			, , , <u> </u>	AEROSPAC	E
QA Closed:			Date:							v	Vork Order up	date only		
Work Orde	er.					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		
	-					Rework	1		Skid-tube	Crosstube	7	Water Jet	Engineering	ĺ
Part I	No.					Scrap		ľ	Machining	Small Fab	Pro	d. Eng. Coor.	Quality	ĺ
	•					Use-as-is			noforming	Finishing	_	re/Packaging	Other	1
NCR I	No.					Suspected Unapproved	1		Large Fab	Composite		Supplier		ł
											<del></del>		,	
Root					Desc	ription of work order update	П	nitial	Acti	ion	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	iption	Date	Verification	QC Inspector	
Design	Щ													
Doc/Data	Щ													
Equip/Tooling	Ш						l							
Handling/Pre	Щ		:											
Material	Щ													
Operator	Н	•												
Offset/Setup	Н				,									
Process	Н													
Supplier	$\vdash \vdash$													
Training Transport	Н													
Unapproved	Н													
Gnapproved	ш		<u>i</u>	<u> </u>			FΔI	UIT CAT	TEGORY		<u> </u>	I		_
Landi	ng G	iear	· · · · · · · · · · · · · · · · · · ·			General		or on						_
		Bending			Г	Bend		Folio/F	rogram	Γ	Outside Dim	ensions [	Pressure/Forced	
	-	Centre No	ot Concer	ntric		BOM/Route		Grain		-	Over/Under		Set-up	
	Ь	Cracks				Broken/Damage/Defect		Hardwa	ire		Part Incorred	<b>⊢</b>	Temperature/Cure	
		Crimp/Kir	nk/Ripple,	/Wave		Burrs		Inspect	ion Incomplete/Un	qualified	Part Lost/Mi	ssing	Weld	
		Cuffs				Contamination		Instruct	ions Incomplete/U	Inclear	Part Moved		Wrong Stock Pulled	ť
	$\overline{}$	Crushing				Countersink		Misalig	ned/off center		Positioned V	Vrong		
		Heat Trea	at			Cut Too Short		Mislabe	eled		Power Loss/	Surge	Other	
		Inspectio	n Strip in	Tube		Drawing		Misread	d,	_		_		
		Marks/Ch	natter			Drill Holes		Off-set						
	Ш	Turning S	equence			Finish		Out of (	Calibration					
		Wave/Tw	ist in Tub	e		Fit/Function		Out of 9	Sequence					



DQA:		Date:										
					WORK ORDER NON-	-CC	ONFO	RMANCE / UPD/	ATE			A E R O S P A C E
QA Closed:		Date:							W	ork Order up	date only	
Work Orde	er:				DISPOSITION				AGAINST DE	PARTMENT	PROCESS	
					Rework			Skid-tube C	Crosstube		Water Jet	Engineering
Part N	lo				Scrap			Machining S	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is		Therr	noforming	Finishing	Rec/Stor	e/Packaging	Other
NCR N	lo				Suspected Unapproved			Large Fab Co	omposite		Supplier	
Root				Desci	ription of work order update	1	nitial	Action	-	Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description	on	Date	Verification	QC Inspector
Design											·-	
Doc/Data												
Equip/Tooling												
Handling/Pre												
Material												
Operator	_											
Offset/Setup												
Process												
Supplier	_				•							
Training												
Transport												
Unapproved			<u></u>	l								
	·				·	FAL	ULT CA	TEGORY				
Landir	g Gear				General		1	_		1 .		
}	Bendir	•		<u> </u>	Bend		1	Program		Outside Dim	<del> </del>	Pressure/Forced
		Not Conce	ntric		BOM/Route		Grain			Over/Under	<u> </u>	Set-up
}	-Cracks	turi tulmi u	<i></i>	<u> </u>	Broken/Damage/Defect		Hardwa			Part Incorrec	ļ	Temperature/Cure
ļ		Kink/Ripple	e/Wave	-	Burrs	<u> </u>		ion Incomplete/Unqua	<del></del>	Part Lost/Mi	ssing	Weld
}	Cuffs				Countamination	_	1	tions Incomplete/Uncle	ear	Part Moved	<u>,</u>	Wrong Stock Pulled
	Crushi	•		<u> </u>	Countersink		1	gned/off center	. <b>-</b>	Positioned W	_	ا ا
	Heat T		Tuba	-	Cut Too Short	$\vdash$	Mislabe			Power Loss/S	surge	Other
		tion Strip in	eauri		Drawing Drill Holos		Misread	*			<del></del>	
	_	/Chatter		-	Drill Holes	$\vdash$	Off-set					
}		g Sequence			Finish	<u> </u>	4	Calibration				
i	Wave/Twist in Tube			Fit/Function		Out of S	Sequence					



DQA:			Date:		WORK ORDER NON-CONFORMANCE / UPDATE								DART
QA Closed:			Date:			WORK ORDER NON	-00	JNFUI	RIVIANCE / UPDA		ork Order up	date only	AEROSPACE
Work Orde	or.					DISPOSITION			Α	AGAINST DE	PARTMENT	PROCESS	,
Work Orac	··· —				-	Rework	1		Skid-tube Cr	osstube	]	Water Jet	Engineering
Part N	Jo					Scrap	1		<b>⊢</b>	mall Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is	1 1		~ <b>—</b>	inishing	4	e/Packaging	Other
NCR N	١o.					Suspected Unapproved	1	1110111	- <del></del>	mposite	1100,000	Supplier	1 1
							'		·	· <u>-</u>	1		
Root					Desci	ription of work order update	1	Initial	Action		Sign &		
Cause	1	Date	Step	Qty		or non-conformance	Ch	ief Eng	Descriptio	n	Date	Verification	QC Inspector
Design													
Doc/Data													
Equip/Tooling	_												
Handling/Pre													
Material	_												1
Operator											•		
Offset/Setup	_												
Process	_												
Supplier													
Training													
Transport													
Unapproved							<u> </u>						1,
1 19							FAI	ULT CA	regory				
Landir آ						General		] 			10 0.		٦. ،
}	_	nding		A	-	Bend BONA (Bounts	-	1	rogram		Outside Dim	<b>—</b>	Pressure/Forced
}	_		t Concer	itric	$\vdash$	BOM/Route	$\vdash$	Grain			Over/Under	<b>├</b>	Set-up
}	_	acks	l./Dimmlo	/\^/==	-	Broken/Damage/Defect	$\vdash$	Hardwa		· c:	Part Incorred	<del>-</del>	Temperature/Cure
			k/Ripple	/ wave	-	Burrs	$\vdash$	1	ion Incomplete/Unquali	<u> </u>	Part Lost/Mi	ssing	Weld
•	Cu	ushing				Contamination Countersink	-	1	ions Incomplete/Unclea	ar 📙	Part Moved	L-	Wrong Stock Pulled
ŀ	_	asning at Treat				Cut Too Short		Mislabe	gned/off center	-	Positioned W Power Loss/	_	Other
	_		Strip in	Tubo		Drawing	$\vdash$	Misrea		<u> </u>	Jeower Lossy:	Surge	Other
		arks/Cha	•	iube	<u> </u>	Drill Holes	$\vdash$	Off-set					
	_		equence		$\vdash$	Finish	$\vdash$	4	Calibration				
			st in Tub	ρ	-	Fit/Function	<u> </u>	4	Convence				



DQA:		_ Date:										
QA Closed:		Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE	W	ork Order up	odate only	AEROSPACE
Work Orde	er:				DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS	
Part N	lo.			<del></del>	Rework Scrap Use-as-is Suspected Unapproved			Skid-tube Crosstube Machining Small Fab noforming Finishing Large Fab Composite		-1	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root				Desci	ription of work order update	1	nitial	Action		Sign &		
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved												
	!	1				FAI	JLT CAT	regory		<u> </u>		1
Landir	ng Gear				General					-		
	Bending Centre N Cracks	ot Concei	ntric		Bend BOM/Route Broken/Damage/Defect		Folio/P Grain Hardwa	Program ire		Outside Dim Over/Under Part Incorre	tolerance	Pressure/Forced Set-up Temperature/Cure
		nk/Ripple	/Wave		Burrs		Inspecti	ion Incomplete/Unqualified	_	Part Lost/Mi	ssing	Weld
	Cuffs				Contamination		1	ions Incomplete/Unclear	_	Part Moved	· L	Wrong Stock Pulled
	Crushing Heat Trea				Countersink Cut Too Short		Misalig Mislabe	gned/off center eled		Positioned V Power Loss/		Other
	Inspectio	n Strip in	Tube		Drawing		Misread	d				_
	Marks/Cl	natter			Drill Holes		Off-set					
	Turning S	Sequence			Finish		Out of 0	Calibration				
	Wave/Tv	vist in Tul	ре		Fit/Function		Out of S	Sequence				

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

DART AEROSPACE LTD	Work Order:	102845
Description: L-Bracket	Part Number:	D2012-115-1
Inspection Dwg: D2012-115 Rev: B		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.257	+0.006/-0.001	0.25%	_		V	Themos
0.75	+/-0.030	0.753	-		V	
0.375	+/-0.010	0.753'	-		V	
0.400	+/-0.010	6.402"	_		V	
2.260	+/-0.010	2.263"	-		V	
3.06	+/-0.030	3.066	_		v	
0.063	+/-0.010	0.056"	-		V	·
	·					
				·		

Measured by:	5m	Audited by: Sh	Preliminary Approval:				
Date:	13-07-25	Date: 13 706	Date:				

Rev	Date	Change	Revised	Approved
Α	12.10.05	New Issue	KJ 🙀	M

DQA:	Date:				. WORK ORDER NON CONFORMANCE (1175-175								TRAGE.
QA Closed: Date:			WORK ORDER NON-CONFORMANCE / UPDATE  Work Order update only								AEROSPACE		
Mark Order					DISPOSITION				PARTMENT,	/PROCESS			
Work Order:  Part No.  NCR No.			Rework Scrap Use-as-is Suspected Unapproved		Machining Small Fa Thermoforming Finishin		Crosstube Small Fab Finishing Composite		Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier		Engineering Quality Other		
Root				Desci	ription of work order update	ı	nitial	Ac	ction		Sign &		
Cause	Date	Step	Qty		or non-conformance	1	ief Eng Description				Date	Verification	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved												Vermedien	QC IIISPECIOI
					•	FAL	JLT CAT	TEGORY					
Landi	ng Gear				General				-		_		
	Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat			Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short	Grai Hard Inspe Instr Misa		ware ection Incomplete/Unqualified uctions Incomplete/Unclear aligned/off center abeled			Outside Dimensions Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Positioned Wrong Power Loss/Surge		Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other	
	Inspection Strip in Tube			L	Drawing	$\vdash$	Misread						
	Marks/Chatter			_	Drill Holes	_	Off-set						
	Turning Sequence				Finish	-	ł	Calibration					
	Wave/Twist in Tube				Fit/Function		Out of S	Sequence					